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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,057	10/28/2004	Klaus Schultes	254577US0PCT	2518
22850	7590	03/08/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER MOORE, MARGARET G	
			ART UNIT	PAPER NUMBER

1712

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/502,057	Applicant(s) SCHULTES ET AL.	
	Examiner Margaret G. Moore	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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1. Claims 5, 6, 9 and 13 to 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 5, the term "acrylate rubber based" is indefinite. That is, it is unclear what is embraced by the term "based". For prior art purposes the Examiner is of the position that this embraces the silicone rubber graft copolymer since it includes an acrylate rubber shell.

For claim 14, the term "obtainable" is indefinite. It is unclear if this limits the molding to ones prepared by this method or not.

For claim 13, it appears confusing that the vinyl content is in terms of mol% based on total weight. It would appear that the vinyl content should be mol% based on total mol% of wt% based on the weight of the core. Clarification is required.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1-16 are provisionally rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 18-25 of copending application No. 10/501,467.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the silicone rubber graft copolymer in '467 embraces silicone graft copolymers in which the shell is obtained from a mixture of acrylic esters and methacrylates. See for instance the silicone graft copolymers of claims 11 and 12 in '467. Claims 18 to 25 are drawn to an impact resistant molding material which contain both poly(meth)acrylates as well as styrene-acrylonitrile polymers. In this manner the instant claims are embraced by the claims in '467.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4 to 6, 9 to 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Geck et al.

Geck et al. teach silicone rubber graft copolymers meeting the requirements of the silicone copolymer in claim 1. See for instance column 2, lines 45 and on, which teach an organosilicon compound meeting the "x", "y" and "z" limitations in claim 1. Col. 4, lines 25 to 29, teach the incorporation of vinyl groups in the silicon core. A shell is

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subsequently polymerized and grafted onto this core. See column 4, lines 32 and on, which teach a mixture of methyl methacrylate and butyl acrylate. In fact, column 4, line 54, teaches that this is a preferred copolymer shell. The top of column 5 teaches that this core-shell polymer can be added to polyacrylate and polymethacrylate resins. This results in a composition that anticipates that claimed.

For claim 2 see column 4, lines 57 to 59. For claims 4 and 9, see column 5, line 7. As noted previously, the silicone graft copolymer can also be considered an acrylate rubber based impact modifier since the graft copolymer contains an acrylate rubber layer. See column 3, lines 21 and 22, for claims 6 and 10. The methyl methacrylate and butyl acrylate meet claims 11 and 12.

For claim 14 the term "molding" is broad enough to cover the coating composition in Geck et al. Note column 5, line 54, which teaches using the composition as a component in a refrigerator or as a protective cover.

7. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geck et al.

For claim 3, patentees fail to teach the specific ratio of acrylic ester to methacrylate, even though a mixture of these monomers is preferred. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (i.e. does not require undue experimentation). For instance, in view of the teaching that both monomers can be used, the skilled artisan would have found the selection of a 50/50 weight ratio to have been an obvious starting point for the core/shell copolymers in Geck et al. since this incorporates equal amounts of both necessary monomers. In this manner claim 3 is rendered obvious.

For claim 13, patentees fail to specifically teach this vinyl group content. Note that Example 1 includes 5 mol% vinyl groups. Column 3, line 36, teaches that less than 30 mol% of the radicals in the siloxane polymer can be vinyl. As noted above, where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. From this the skilled artisan

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would have found the selection of from 2 to 3 mol% vinyl groups to have been obvious, particularly in view of how close 3 mol% is to 5 mol%, the specifically shown content in the working examples.

8. Claim 15 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Geck et al.

Patentees are silent as to these properties. The composition claimed, however, is the same as that found in the prior art (as noted above). Products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In this manner the prior art inherently meets the instant claim. Where applicant claims a composition in terms of a property and the composition of the prior art is the same as that of the claim but the property is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. See MPEP 2112 (III).

9. Claims 1, 2, 4 to 6, 9 to 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mautner et al.

Mautner et al. teach graft copolymers having core/shell structure. See column 2, lines 40 and on, which teaches an organosilicon core meeting the claimed "x", "y" and "z" values and a grafted core. See for instance Example 3 in which vinyl groups are incorporated into the core and a mixture of acrylic esters and methacrylates meeting claims 11 and 12 is grafted thereto. The particle size meets claim 10. These core/shell compounds are used as impact modifiers for polymers and column 10, line 29, and column 11, lines 13 - 15, teach polymethylmethacrylate. In view of the very limited number of specifically taught polymers to which the impact modifiers can be added, one would have anticipated the addition of a core/shell graft copolymer meeting that in claim 1 (for instance one prepared by the method of Example 3 in Mautner et al.) to polymethylmethacrylate. In this manner the claims are met by the prior art.

For claim 2, see column 6, line 20, which anticipates the range of 70:30. For claims 4 and 9, note that the amount of impact modifier added in column 11 falls within these ranges. For claim 5, note the rationale noted above.

10. Claim 15 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mautner et al.

This rejection relies on the same rationale as that detailed in paragraph 8, *supra*, and as such this will not be repeated.

11. Claims 3, 7, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mautner et al.

For claims 7 and 8, please note that of the 4 thermoplastics taught in Mautner et al. to which the core/shell polymer modifiers are added, in addition to polymethylmethacrylate there is also styrene-acrylonitrile polymers. Thus, from the limited number of thermoplastics taught in Mautner et al., the skilled artisan would have found a composition containing two of these four polymers to have been obvious. Note that it is *prima facie* obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. In *re* Ruff 118 USPQ 343; In *re* Jazel 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. In *re* Font, 213 USPQ 532. In addition, It is *prima facie* obvious to combine two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. In *re* Kerkhoven 205 USPQ 1069. The idea for combining said compositions flows logically from their having been individually taught in the prior art. The teachings in Mautner et al. indicate that the polymers therein are useful in forming thermoplastics having improved impact strength and combining two thermoplastics having desirable impact strength to form another would have been obvious to the skilled artisan.

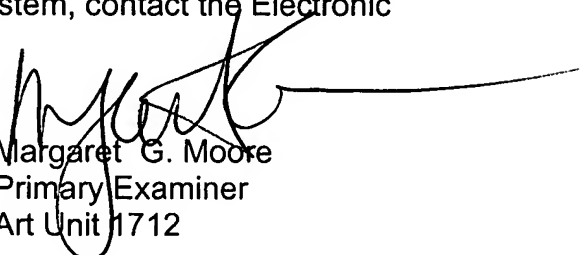
For claims 3 and 13, the Examiner relies on the rationale detailed in paragraph 8, above, as it presently applies.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
3/4/06